

Re: International Application No. PCT/IT 03/00053
filed on 04.02.03 in the name of FAVAGROSSA EDOARDO Srl
et al.

Sir,

This is in response to the Written Opinion (PCT Rule
66) mailed on

The observations of the Examiner have been carefully
considered.

From item V of the Office Letter, Applicant has noted
that "in light of the documents cited in the
international search report, it is considered that
the invention as defined in at least some of the
claims does not appear to meet the criteria mentioned
in Article 33(1) PCT, i.e. does not appear to be
novel and/or to involve an inventive step".

For overcoming the above rejection grounds, claims 1
to 7 have been cancelled, and new claims 1 to 3 have
been submitted, in order to clearly distinguish
Applicant's invention over the prior art documents,
either individually or in combination.

In drafting the new claims, no matter has been added, since the added matter can be easily deduced from the drawings included in Applicant's disclosure.

From the main claim, the gist of the invention should be envisaged in the fact that on the cylindric outer surface of the cylindric washing roller are defined a plurality of separated adjoining diagonal seats, each for receiving fixedly therein a cleaning band element, that the separated seats are inclined with respect to the central longitudinal axis of the roller, and that with said cylindric body in a vertical and not driven condition thereof each said band element will fall as to overlap on an adjoining like band element.

It is respectfully submitted that the new main claim is actually novel and non obvious with respect to the prior art documents either individually or in combination.

Actually, in the prior art documents, the bristles of the brush are engaged as individual wire elements in a continuous slot defined along the overall outer surface of the cylindric body of the brush, in an adjoining nearly contacting mutual relationship.

In this connection, Applicant desires to draw the attention of the Examiner that of the disclosed prior art documents, only the document DE 20114359 shows a washing brush for motor vehicle washing systems, whereas it is respectfully submitted that the other brush constructions would not be adapted for washing

motor vehicles: however, in this DE reference, the bristles are constructionally very different from the bristles disclosed by Applicant. Moreover, the prior bristles are not arranged with an inclined relationship with respect to the longitudinal axis of the roller.

Of the other prior art documents, which, however, would not be adapted to provide a cleaning brush for motor vehicles, the document 3139641 discloses, in figure 13 thereof, for example, an arrangement of bristles which are not diagonally inclined with respect to the axis of the roller, but are arranged in a continuous lot which continuously helically extend through the overall extension of the rollers: thus, in this prior art document, the bristles are not diagonally inclined with respect to the longitudinal axis of the roller as taught in Applicant's new claim.

In this connection, moreover, Applicant desires to draw the attention of the Examiner on the fact that in none of the prior art documents there are taught or addressed band elements which, in a vertical and non driven condition of the washing roller would fall onto one another so as to overlap on one another with the roller, as stated, in a non driven condition.

Accordingly, as stated, it is believed that the new main claim discloses a washing brush construction very different from that of the prior art documents and, accordingly, it is respectfully submitted that new claim 1 would have patentable merits over the

art.

From new claim 2, it is possible to deduce the further inventive feature that the band elements comprise an elongated substantially rectangular flat body having an end portion thereof fixedly restrained in a respective seat of the cylindric body, each band element being so longitudinally slit or cut as to define a plurality of adjoining substantially flat and parallel cleaning bristles, said bristles having different lengths.

The fact that the bristles have different lengths, in particular, does not add new matter since it is clearly shown, for example in figure 5, that the slits or cuts have different lengths, thereby providing a plurality of different length parallel adjoining bristles.

None of the prior art documents teaches or addresses to provide a plurality of bristles individually formed, with different lengths, in a single band element: in other words, Applicant's bristles are not separated elements, but comprise a plurality of strips which are joined in a band element since they are formed by providing a plurality of longitudinal cuts through the body of the band element, thereby the individual bristles, which can have different lengths, are mutually joined by a portion of the band element material, since the cuts do not extend through the overall longitudinal extension of the body of the flat band elements.

Accordingly, it is respectfully submitted that also new claim 2 should have patentable merits over the prior art documents either individually or in combination.

Finally, new claim 3 further recites the novel feature of Applicant's washing brush that the adjoining strips of the band elements have different colors, said colors defining a perfect epicycloidal color pattern.

This feature too is neither disclosed or addressed by any of the prior art documents and accordingly, and since the claim depends on the previous allowable claims, would provide Applicant's washing brush with further patentable characteristics.

Applicant respectfully requires the Examiner to provide and establish directly an International Preliminary Examination Report based on the above observations.

In view of the foregoing discussion, a favorable prosecution of the application is respectfully requested.

Respectfully submitted

A handwritten signature in dark ink, appearing to read "James E. Rogers", with a long horizontal flourish extending to the right.

Encl.: New claim 1 to 3 page 9

Hand amended page 6 of the disclosure

CLAIMS

1. A washing brush for washing brush assemblies to be applied to automatic systems for washing motor vehicles in general, comprising a cylindric body having a central longitudinal axis and a side cylindric outer surface, characterized in that on said cylindric outer surface are defined a plurality of separated adjoining diagonal seats having a length smaller than the diameter of said cylindric body, each for receiving fixedly therein a cleaning band element, that said separated seats are inclined with respect to said central longitudinal axis, and that with said cylindric body in a vertical and non driven condition thereof, each said band element will fall so as to overlap on an adjoining like band element.

2. A washing brush, according to the preceding claim, characterized in that each said band element comprises an elongated substantially rectangular flat body having an end portion thereof fixedly restrained in a respective said seat of said cylindric body, each said band element being so longitudinally slit or cut as to define a plurality of adjoining substantially flat and parallel cleaning bristles, said bristles having different lengths.

3. A washing brush, according to one or more of the preceding claims, characterized in that said adjoining strips of the band elements have different colors, said colors defining a perfect epicycloidal color pattern.

parallel to the axis.

* According to a preferred inclination, the band element has in average a 25% larger length.

In this connection it should be pointed out
5 that the inclination of the band elements can be further changed, to also provide further larger lengths.

Accordingly, the amount of material being the same, the number of the band elements will be
10 smaller, since each band element will have a width larger than the widths of the band elements arranged parallel to the axis, and accordingly perpendicularly to the motor vehicle to be washed motion direction.

Accordingly, the reduction of the number of
15 the band elements will reduce the labor necessary for making the single components on the washing brush and for fixing them, independently from the method for carrying out the fixing operation.

Moreover, the slanted or diagonal
20 arrangement allows the orienting of the band elements and related end/^{cleaning}strips/^{or brushes} to be offset, notwithstanding a radial effect provided by the centrifugal force.

Actually, in automatic motor vehicle washing systems, the maximum speed does not exceed
25 110 rpm's and the natural trend of the band elements to fall in a natural direction due to their oblique positions, allows said band elements to "close" possible spaces or gaps, in an optimum manner.

Moreover, the colored spiral obtained by
30 adjoining different colors on the band elements would be perfectly arranged with respect to its epicycloidal pattern.

* Advantageously each band element is engaged in a corresponding diagonal separated slanted retransformed on the outer surface of the cylindric body 11, of substantially V-shape and, as in particular shown in Fig. 5, the cleaning strips 14 or brushes are defined by different slots or cuts longitudinally parallelly extending through each band element, each having a length smaller than the diameter of the cylindric body.